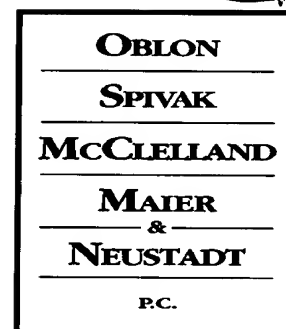




Docket No.: 194539US2

COMMISSIONER FOR PATENTS  
ALEXANDRIA, VIRGINIA 22313



ATTORNEYS AT LAW

RE: Application Serial No.: 09/782,064

Applicants: Tetsuro MOTOYAMA, et al.

Filing Date: February 14, 2001

For: OBJECT-ORIENTED METHOD AND SYSTEM OF  
REMOTE DIAGNOSTIC, CONTROL AND  
INFORMATION COLLECTION USING MULTIPLE  
FORMATS AND MULTIPLE PROTOCOLS

Group Art Unit: 2176

Examiner: TRAN, QUOC A

SIR:

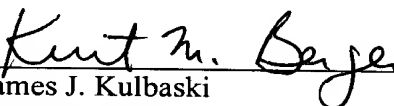
Attached hereto for filing are the following papers:

**APPEAL BRIEF WITH APPENDICES**

Our credit card payment form in the amount of **\$500.00** is attached covering any required fees. In the event any variance exists between the amount enclosed and the Patent Office charges for filing the above-noted documents, including any fees required under 37 C.F.R. 1.136 for any necessary Extension of Time to make the filing of the attached documents timely, please charge or credit the difference to our Deposit Account No. 15-0030. Further, if these papers are not considered timely filed, then a petition is hereby made under 37 C.F.R. 1.136 for the necessary extension of time. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

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IN THE UNITED STATES PATENT & TRADEMARK OFFICE

IN RE APPLICATION OF :  
TETSURO MOTOYAMA ET AL. : EXAMINER: TRAN, Q.  
SERIAL NO: 09/782,064 :  
FILED: FEBRUARY 14, 2001 : GROUP ART UNIT: 2176  
FOR: OBJECT-ORIENTED METHOD :  
AND SYSTEM OF REMOTE  
DIAGNOSTIC, CONTROL AND  
INFORMATION COLLECTION USING  
MULTIPLE FORMATS AND MULTIPLE  
PROTOCOLS

APPEAL BRIEF

COMMISSIONER FOR PATENTS  
ALEXANDRIA, VIRGINIA 22313

SIR:

Applicants appeal the outstanding Final Rejection of January 3, 2007, finally rejecting each of pending Claims 1-25.

I. REAL PARTY IN INTEREST

The above-noted application is assigned to Ricoh Company, Ltd., which is the real party in interest, having a place of business at Tokyo, Japan.

II. RELATED APPEALS AND INTERFERENCES

04/27/2007 MAHME1 00000069 09782064

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Applicant and Applicant's representative are not aware of any related appeals or interferences that will directly effect or be directly affected by or having a bearing on the Board's decision in the pending appeal.

### III. STATUS OF CLAIMS

Claims 1-25 are pending in this application and the rejection of each of Claims 1-25 is being appealed.

No claims were cancelled, but Claim 25 was added and Claims 1, 2, 4-10, 13-18, and 21-24 were amended during prosecution of this application.

### IV. STATUS OF AMENDMENTS

A Request for Reconsideration was filed subsequent to the non-final Rejection dated July 7, 2006. Accordingly, all previously filed Amendments have been considered by the Examiner and are reflected in the attached claims.

### V. SUMMARY OF CLAIMED SUBJECT MATTER

The applicants of the present invention recognized that a problem exists in the current art in that until the present invention there was not a method and system for collecting information regarding a plurality of target applications in an appliance or device, e.g., a printer or copier. A target application can be, e.g., a user interface or a software program.

Accordingly, Claim 1 sets forth an object-oriented method of collecting information regarding a plurality of target applications in an appliance or device. The method recited in Claim 1 is generally supported by Figures 9-12A and the description related thereto in the specification, i.e., pages 23-31.

In particular, Claim 1 recites the step of receiving, from a first one of the plurality of target applications through an interface, by a monitoring device in the appliance or device, a request to send first information regarding monitored usage of the first one of the plurality of target applications to a first predetermined destination through a first communication protocol

using a first data format, which finds supports, e.g., in Figure 9 (device/appliance 300; target applications 510, 512, and 513; monitoring system 515), page 23, lines 6-16; and page 24, lines 1-15 of the specification. See also Figure 12A, element 810 (interface). Further, see Figure 12A, 13A, and 13B and page 30, line 20 to page 31, line 23, which describe the functions a target application uses to initiate monitoring, stop monitoring, and request the sending of information regarding the monitored usage to a destination using a selected protocol/format combination.

Further, Claim 1 recites the step of receiving, from a second one of the plurality of target applications through the interface, by the monitoring device, a request to send second information regarding monitored usage of the second one of the plurality of target applications to a second predetermined destination through a second communication protocol using a second data format, wherein the first communication protocol is different from the second communication protocol, which finds support as set forth above for the first receiving step. As shown in Figure 9, there may be multiple target applications in the appliance or device. The second receiving step is analogous to the first receiving step, but recites a second one of the target applications, second monitored usage information, a second protocol, a second format, and a second predetermined destination. Accordingly, Applicants respectfully submit that the support for the second receiving step is set forth above with regard to the first receiving step.

Independent Claim 9 (directed to an object-oriented system for collecting information regarding a plurality of target applications) and Claim 17 (directed to a program product for collecting information regarding a plurality of target applications) recite limitations analogous to the limitations recited in Claim 1. Accordingly, Applicants submit that Claims 9 and 17 are supported in a manner analogous to the support set forth above for Claim 1.

For example, Claim 9 is directed to an object-oriented system for collecting information regarding a plurality of target applications in an appliance or device, the system comprising: a monitoring device in the appliance or device, the monitoring device configured to receive, from a first one of the plurality of target applications through an interface, a request to send first information regarding monitored usage of the first one of the plurality of target applications to a first predetermined destination through a first communication protocol using a first data format, and to receive, from a second one of the plurality of target applications through the interface, a request to send second information regarding monitored usage of the second one of the plurality of target applications to a second predetermined destination through a second communication protocol using a second data format, wherein the first communication protocol is different from the second communication protocol. See Figure 9 (device/appliance 300; target applications 510, 512, and 513; monitoring system 515), page 23, lines 6-16; and page 24, lines 1-15 of the specification. See also Figure 12A, element 810 (interface). Further, see Figure 12A, 13A, and 13B and page 30, line 20 to page 31, line 23, which describe the functions a target application uses to initiate monitoring, stop monitoring, and request the sending of information regarding the monitored usage to a destination using a selected protocol/format combination.

Further, Claim 17 is directed to a program product for collecting information regarding a plurality of target applications in an appliance or device, the program product comprising a computer readable medium embodying program instructions for causing an object-oriented system to perform the steps of: (1) receiving, from a first one of the plurality of target applications through an interface, by a monitoring device in the appliance or device, a request to send first information regarding monitored usage of the first one of the plurality of target applications to a first predetermined destination through a first communication protocol using a first data format; and (2) receiving, from a second one of the plurality of

target applications through the interface, by the monitoring device, a request to send second information regarding monitored usage of the second one of the plurality of target applications to a second predetermined destination through a second communication protocol using a second data format, wherein the first communication protocol is different from the second communication protocol. See Figure 9 (device/appliance 300; target applications 510, 512, and 513; monitoring system 515), page 23, lines 6-16; and page 24, lines 1-15 of the specification. See also Figure 12A, element 810 (interface). Further, see Figure 12A, 13A, and 13B and page 30, line 20 to page 31, line 23, which describe the functions a target application uses to initiate monitoring, stop monitoring, and request the sending of information regarding the monitored usage to a destination using a selected protocol/format combination.

#### VI. GROUND'S OF REJECTION TO BE REVIEWED ON APPEAL

The grounds of rejection being appealed are:

- (1) whether the combined teachings of U.S. Patent No. 5,414,494 to Aikens et al. (hereinafter "the '494 patent") in view of U.S. Patent No. 5,956,487 to Venkatraman et al. (hereinafter "the '487 patent") and U.S. Patent No. 5,727,135 to Webb et al. (hereinafter "the '135 patent") render obvious the subject matter of each of Claims 1-4, 9-12, 17-20 and 25 under U.S.C. § 103(a); and
- (2) whether the combined teachings of the '494, '478, and '135 patents, further in view of U.S. Patent No. 6,745,224 to D'Souza et al. (hereinafter "the '224 patent") render obvious the subject matter of each of Claims 5-8, 13-16, and 21-24 under U.S.C. § 103(a).

## VII. ARGUMENT

### Claims 1-4, 9-12, 17-20 and 25

Claim 1 is directed to an object oriented method of collecting information regarding a plurality of target applications in an appliance or device, comprising: (1) receiving, from a first one of the plurality of target applications through an interface, by a monitoring device in the appliance or device, a request to send first information regarding monitored usage of the first one of the plurality of target applications to a first predetermined destination through a first communication protocol using a first data format; and (2) receiving, from a second one of the plurality of target applications through the interface, by the monitoring device, a request to send second information regarding monitored usage of the second one of the plurality of target applications to a second predetermined destination through a second communication protocol using a second data format, wherein the first communication protocol is different from the second communication protocol.

Regarding the rejection of Claim 1 under 35 U.S.C. § 103, the Office Action asserts that the '494 patent discloses everything in Claim 1 with the exception of a first communication protocol using a first data format, and the second receiving step, and relies on the '487 and '135 patents to remedy those deficiencies.

The '494 patent is directed to a method of automatically notifying remote devices in response to machine conditions detected by a machine monitoring element. As shown in Figs. 7 and 8, the '494 patent discloses a system in which a user can select predetermined conditions for reporting information to a remote device, such as paper jams and low toner. Further, the '494 patent discloses that such events can be reported "always" or when various thresholds are met. Moreover, as shown in Figure 2, the '494 patent discloses a copier including a plurality of wiring boards 102, 104, and 106 connected by a common channel or bus 98.

However, Applicants respectfully submit that the '494 patent fails to disclose the step of receiving, from a first one of a plurality of target applications through an interface, by a monitoring device in an application or device, a request to send first information regarding monitored usage of the first one of the plurality of target applications to a first predetermined destination through a first communication protocol using a first data format, as recited in Claim 1. Rather, the '494 patent merely discloses that a user can set up conditions upon which information is reported from a copy machine to a remote device upon the occurrence of particular events. In particular, the '494 patent discloses a printed wiring board 108 for the control of the user interface 36 and other wiring boards provided for control of predetermined systems and components of the copier. However, Applicants note that Claim 1 is directed to a plurality of target applications in an appliance or device. Further, Claim 1 requires that one of the target applications send a request to a monitoring device in the application or device, wherein the request is a request to send information regarding monitored usage of the one target application to a first destination. Thus, in Claim 1, it is the target application itself that initiates the request to send information regarding monitored usage of that target application. In contrast, the '494 patent requires a user to select certain triggering conditions via a graphical user interface. However, the '494 patent does not disclose that a particular application or component within the '494 copier sends a request to send information regarding monitored usage of that component or application to a monitoring device in the '494 copier. Rather, the '494 patent discloses that information is automatically sent upon the occurrence of certain events, and that no requests to send monitored information are initiated by a target application within the copier, as required by Claim 1.

The '487 patent is directed to a system for embedding a web access mechanism into an appliance which allows a user to interface with the device using a web browser. As shown in Figure 1a, the '487 patent discloses a system in which a web server is provided within a



device, and an embedded network interface enables access to the device web page by a web browser.

However, Applicants respectfully submit that the '487 patent fails to disclose receiving, from a first one of the plurality target applications through an interface, by a monitoring device in the application or device, a request is sent first information regarding monitored usage of a first one of plurality of target applications to a first predetermined destination to a first communication protocol using a first format, as recited in Claim 1. The '487 patent does not disclose that a target application within the appliance or device sends a request to a monitoring device for the monitoring device to send information regarding monitored usage of the target application to a first predetermined destination, as recited in Claim 1. As discussed above with regard to the '494 patent, Claim 1 requires that the request comes from the target application itself for the monitoring device to send the monitored usage information of the target application that sent the request. The '487 patent does not teach or suggest a target application that sends a request for information regarding its usage to be sent to another device. Rather, the '487 patent is merely directed to a device having a web server accessible by a user through the network interface using a web browser.

The '135 patent is directed to a printing system in which a host computer is bidirectionally attached to one or more printers in a network, wherein the system provides the computer with a substantially real-time visual and functional *replica* of the operator panel of a selected printer. In this way, the '135 patent discloses that a user at the host computer may visually monitor the status of the multiple printers at the same time from the same host display. See '135, Figure 1. Further, the '135 patent discloses that the host computer will receive, in real-time, an indication of an error condition occurring at one or more of the printers, and that the host computer receives printer status and alert information from the printers in data packets.

Initially, Applicants note that the '135 patent is not directed to a plurality of target applications and a monitoring device that are in an appliance or device, as required by Claim 1. Further, the '135 patent does not disclose that a target application sends a request to a monitoring device for the monitoring device to send first information regarding monitored usage of the target application to a first predetermined destination, as recited in Claim 1. As discussed above, *Claim 1 requires that the request comes from the target application itself* for the monitoring device to send the monitored usage information of the target application that sent the request. The '135 application does not teach or suggest the target application that sends a request for information regarding its usage to be sent to another device. Rather, the '135 patent is directed to a system in which a host computer is able to visually and functionally duplicate the operator panel of a selected printer, thereby receiving alert and status information. In this regard, Applicants note that the Office Action relies on the '135 patent as disclosing (1) a second one of the plurality of target applications, (2) a request to send second information regarding monitored usage of the second one of the plurality of target applications to a second predetermined destination, (3) a second communication protocol, and (4) a second data format, as recited in Claim 1. However, other than identifying the Network Printer Alliance Protocol, which the Office Action states is also a format, the Office Action does not specifically equate the claimed elements with the elements disclosed by the '135 patent.

Moreover, Applicants note that the method of Claim 1 recites two receiving steps that recite similar limitations, except that the second receiving step recites a *second* target application, a *second* predetermined destination, a *second* communication protocol, and a *second* data format. Otherwise, the language of the first receiving step and the second receiving step are very similar. Yet, despite this similarity, the Office Action asserts that the first receiving step is disclosed by the combined teachings of the '494 and '487 patents, while

the entire second receiving step is disclosed by the '135 patent. See pages 3-5 of the outstanding Office Action. As discussed above, it is unclear to Applicants how the '135 can disclose all of the limitations in the second receiving step, and the Office Action has not specifically set forth how each of the elements in the second receiving step are disclosed by the '135 patent.

Thus, no matter how the teachings of the '454, '487, and '135 patents are combined, the combination does not teach or suggest receiving, from a first one of plurality of target applications, through an interface, by a monitoring device in an appliance or a device, a request to send first information regarding monitored usage of the first one of the plurality of target applications to a first predetermined destination through a first communication protocol using a first data format, as recited in Claim 1. Further, Applicants respectfully submit that the '487, '135, and '494 patents fail to disclose the second receiving step recited in Claim 1, whether those references are taken individually or in proper combination. Accordingly, Applicants respectfully submit that a *prima facie* case of obviousness has not been established and that the rejection of Claim 1 (and dependent Claims 2-4 and 25) should be withdrawn.

Further, Applicants note that, in the outstanding Office Action, the stated motivation for combining the teachings of the '494, '487, and '135 patents is “for a visually enhanced user interface, and for providing monitoring utilizing Aiken's modem interface connected to the Internet” and “providing Aikens the benefit of bi-directional control of Aiken's status (usage) monitoring, facilitating accurate visual monitoring.”<sup>1</sup> However, Applicants note that Claim 1 does not recite use of the Internet, bi-directional control, or visual monitoring. Further, Applicants note that the motivation for combining the references cited in the outstanding Office Action is simply a statement of what might result from the suggested

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<sup>1</sup> See pages 4 and 5 of the outstanding Office Action.

combination. The Office Action fails to provide motivation for the suggested combination, but merely states what the Office Action perceives as the result of the suggested combination. Thus, the Office Action is merely stating perceived advantages of Applicants' invention as motivation to combine the cited references, without identifying that, without Applicants' specification, one of ordinary skill in the art would have even thought to address the problem. Such hindsight reconstruction of Applicants' invention cannot be used to establish a *prima facie* case of obviousness. Accordingly, for this additional reason, Applicants respectfully submit that a *prima facie* case of obviousness has not been established and the rejection of Claim 1 should be withdrawn.

Independent Claims 9 and 17 recite limitations analogous to the limitations recited in Claim 1. Accordingly, for the reasons stated above for the patentability of Claim 1, Applicants respectfully submit that a *prima facie* case of obviousness has not been established and that the rejections of Claims 9 and 17 (and all similarly rejected dependent claims) should be withdrawn.

Claims 5-8, 13-16, and 21-24

Regarding the rejection of dependent Claims 5-8, 13-16, and 21-24 under 35 U.S.C. § 103, Applicants respectfully submit that the '224 patent fails to remedy the deficiencies of the '494, '135, and 487 patents, as discussed above. Accordingly, Applicants respectfully submit that a *prima facie* case of obviousness has not been established and that the rejection of Claims 5-8, 13-16, and 21-24 should be withdrawn..

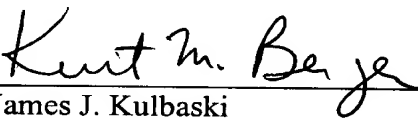
Thus, it is respectfully submitted that independent Claims 1, 9, 17 (and all associated dependent claims) patentably define over any proper combination of the '494, '487, and '135 patents.

VIII. CONCLUSION

For the foregoing reasons, Applicant respectfully submits that each of Claims 1-25 patentably distinguishes over the combination of teachings of the '494, '487, '135, and '224 patents. Therefore, the outstanding rejections must be REVERSED.

Respectfully submitted,

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CLAIMS APPENDIX

1. (Rejected) An object-oriented method of collecting information regarding a plurality of target applications in an appliance or device, comprising:

receiving, from a first one of the plurality of target applications through an interface, by a monitoring device in the appliance or device, a request to send first information regarding monitored usage of the first one of the plurality of target applications to a first predetermined destination through a first communication protocol using a first data format; and

receiving, from a second one of the plurality of target applications through the interface, by the monitoring device, a request to send second information regarding monitored usage of the second one of the plurality of target applications to a second predetermined destination through a second communication protocol using a second data format, wherein the first communication protocol is different from the second communication protocol.

2. (Rejected) The method according to Claim 1, wherein the first data format includes one of text format, binary format, comma separated format, and eXtensible Markup Language (XML) format; and

the first communication protocol includes one of Simple Mail Transfer Protocol (SMTP), File Transfer Protocol (FTP), and local disk.

3. (Rejected) The method according to Claim 1, wherein the first data format is different from the second data format.

4. (Rejected) The method according to Claim 1, further comprising:

formatting the first information into first formatted data according to the first data format;

sending the first formatted data to the first predetermined destination through the first communication protocol;

formatting the second information into second formatted data according to the second data format; and

sending the second formatted data to the second predetermined destination through the second communication protocol.

5. (Rejected) The method according to Claim 4, wherein formatting the first information comprises:

creating a first software class having a declared virtual function;

creating a second software class, derived from the first software class, having a first definition of the declared virtual function; and

creating a first formatted information software object.

6. (Rejected) The method according to Claim 5, wherein creating the first formatted information software object, comprises:

formatting first formatted information according to one of comma separated format and XML format.

7. (Rejected) The method according to Claim 5, wherein sending the first formatted data, comprises:

creating a third software class, derived from the first software class, having a second definition of the declared virtual function; and  
creating a first formatted data software object.

8. (Rejected) The method according to Claim 7, wherein creating a first formatted data software object, comprises:

formatting first formatted data according to one of binary format and text format.

9. (Rejected) An object-oriented system for collecting information regarding a plurality of target applications in an appliance or device, the system comprising:

a monitoring device in the appliance or device, the monitoring device configured to receive, from a first one of the plurality of target applications through an interface, a request to send first information regarding monitored usage of the first one of the plurality of target applications to a first predetermined destination through a first communication protocol using a first data format, and to receive, from a second one of the plurality of target applications through the interface, a request to send second information regarding monitored usage of the second one of the plurality of target applications to a second predetermined destination through a second communication protocol using a second data format, wherein the first communication protocol is different from the second communication protocol.

10. (Rejected) The system according to Claim 9, wherein  
the first data format includes one of text format, binary format, comma separated format, and XML format; and  
the first communication protocol includes one of SMTP, FTP, and local disk.



11. (Rejected) The system according to Claim 9, wherein the first data format is different from the second data format.

12. (Rejected) The system according to Claim 9, further comprising:  
a device configured to format the first information into first formatted data according to the first data format;  
a device configured to send the first formatted data to the first predetermined destination through the first communication protocol;  
a device configured to format the second information into second formatted data according to the second data format; and  
a device configured to send the second formatted data to the second predetermined destination through the second communication protocol.

13. (Rejected) The system according to Claim 12, wherein the device configured to format the first information, comprises:  
a device configured to create a first software class having a declared virtual function;  
a device configured to create a second software class, derived from the first software class, having a first definition of the declared virtual function; and  
a device configured to create a first formatted information software object.

14. (Rejected) The system according to Claim 13, wherein the device configured to create the first formatted information software object, comprises:  
a device configured to format first formatted information according to one of comma separated format and XML format.

15. (Rejected) The system according to Claim 13, wherein the device configured to send the first formatted data, comprises:

a device configured to create a third software class, derived from the first software class, having a second definition of the declared virtual function; and

a device configured to create a first formatted data software object.

16. (Rejected) The system according to Claim 15, wherein the device configured to create the first formatted data software object, comprises:

a device configured to format first formatted data according to one of binary format and text format.

17. (Rejected) A program product for collecting information regarding a plurality of target applications in an appliance or device, the program product comprising a computer readable medium embodying program instructions for causing an object-oriented system to perform the steps of:

receiving, from a first one of the plurality of target applications through an interface, by a monitoring device in the appliance or device, a request to send first information regarding monitored usage of the first one of the plurality of target applications to a first predetermined destination through a first communication protocol using a first data format; and

receiving, from a second one of the plurality of target applications through the interface, by the monitoring device, a request to send second information regarding monitored usage of the second one of the plurality of target applications to a second predetermined destination through a second communication protocol using a second data

format, wherein the first communication protocol is different from the second communication protocol.

18. (Rejected) The program product according to Claim 17, wherein  
the first data format includes one of text format, binary format, comma separated  
format, and XML format; and  
the first communication protocol includes one of SMTP, FTP, and local disk.

19. (Rejected) The program product according to Claim 17, wherein the first data  
format is different from the second data format.

20. (Rejected) The program product according to Claim 17, wherein the program  
instructions cause the system to further perform the steps of:

formatting the first information into first formatted data according to the first data  
format;

sending the first formatted data to the first predetermined destination through the first  
communication protocol;

formatting the second information into second formatted data according to the second  
data format; and

sending the second formatted data to the second predetermined destination through  
the second communication protocol.

21. (Rejected) The program product according to Claim 20, wherein formatting the  
first information, comprises:

creating a first software class having a declared virtual function;

creating a second software class, derived from the first software class, having a first definition of the declared virtual function; and  
creating a first formatted information software object.

22. (Rejected) The program product according to Claim 21, wherein creating the first formatted information software object, comprises:

formatting first formatted information according to one of comma separated format and XML format.

23. (Rejected) The program product according to Claim 21, wherein sending the first formatted data, comprises:

creating a third software class, derived from the first software class, having a second definition of the declared virtual function; and  
creating a first formatted data software object.

24. (Rejected) The program product according to Claim 23, wherein creating the first formatted data software object, comprises:

formatting first formatted data according to one of binary format and text format.

25. (Rejected) The method of Claim 1, wherein the first predetermined destination is a component internal to the appliance or device.

EVIDENCE APPENDIX

None

RELATED PROCEEDING APPENDIX

None